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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,156	08/02/2005	Bernd Erhardt	3926.116	5697
30448 7590 02/15/2007 AKERMAN SENTERFITT P.O. BOX 3188 WEST PALM BEACH, FL 33402-3188			EXAMINER LARSON, LOWELL A	
			ART UNIT 3725	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/15/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/517,156

Applicant(s)

ERHARDT ET AL.

Examiner

Lowell A. Larson

Art Unit

3725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE THREE MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18 to 36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18 to 36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

2. Claims 18 to 31, 35 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over de Smet in view of Palmer for the reasons set forth in Paragraph 3 of the last Office Action (paper mailed October 12, 2006).

Applicant's remarks in the response filed December 18, 2006 have been carefully considered but are not found to be persuasive. In particular, Applicant has pointed out that these claims require the use of two tools – a deformation tool and a test tool. De Smet and Palmer each show the use of only a single tool.

De Smet discloses the formation of ribs 40 in the edge area of a deformed sheet blank in order to attain an acceptable geometry of the product. De Smet advises that the number, distribution, dimension and shape of the ribs, which are formed by corresponding die reliefs 29, are determined in order to absorb the excess length of the flanged edge formed by the deformation tool. Thus, one skilled in the art is instructed to find optimum parameters for the ribs 40 and configure the deformation tool accordingly, corresponding to preforming the sheet using the deformation tool and adjusting the deformation geometry of the deformation tool as required by Claim 18. Therefore, apropos of Claim 18, de Smet only lacks using a test tool to form prototype ribs in the formed sheet edge in order to empirically determine an optimum number and/or distribution of ribs.

Palmer shows that bending tools having manually exchangeable inserts, as required by Claims 29 to 31, are well known in the art for forming local deformations in sheet material, and advises that its operation is positive and accurate. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a bending tool, such as that of Palmer, as a "test tool" to form prototype ribs in the edge of the de Smet preformed sheet in order to empirically determine the optimum number and/or distribution of local deformations to attain acceptable product geometry, following the suggestion of Palmer that using a tool having complimentary forming inserts provides positive and accurate results. Thus, the use of two tools, as pointed out in the December 18, 2006 response, is not found to be a patentable distinction.

The use of a shape gauge, as required by Claims 26, 27 and 35, does not distinguish over checking the geometry of the sheet flange with a simple straightedge ruler in order to determine whether acceptable tolerances have been obtained. Checking results is considered to be an obvious expedient in a production facility of any kind, and not a patentable distinction absent a disclosure of criticality in the solution of stated problems with the use of any specific testing technique.

The particular material of the sheet, as recited in Claims 28 and 36, is considered to be an obvious exercise of designer's choice depending merely on the characteristics desired in the product, and not a patentable distinction absent a disclosure of criticality in the solution of stated problems with the use of any specific material in combination with the processing steps.

3. Claims 32 to 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over de Smet in view of Palmer as applied to Claim 18 above, and further in view of Valek et al.

These claims require the deformation tool to be a stamp and die plate having releasable inserts. Valek et al. shows that it is old to provide a stamp and die plate with complimentary inserts for forming geometry-correcting ribs in a preformed sheet metal article. See column 5, lines 3 to 19. Valek et al. advises that in such a manner the rib-forming inserts can be replaced individually as needed rather than replacing the entire die assembly to change a single rib die.

It would have been further obvious to provide the rib-forming reliefs 29 of de Smet as a stamp and die plate having individual complimentary inserts, following the suggestion of Valek et al., in order to facilitate adjusting the die geometry by adjusting the placement of individual tool elements instead of replacing the entire die assembly every time a rib configuration change is mandated for the achievement of optimum product geometry.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

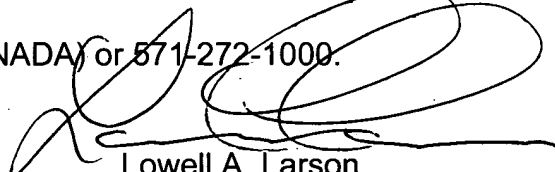
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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lowell A. Larson whose telephone number is (571) 272-4519. The examiner can normally be reached from M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached at (571) 272-4419. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Lowell A. Larson
Primary Examiner
Art Unit 3725

LAL
February 12, 2007